

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical holographic device for reading out a data page recorded in a holographic medium-(106), said device comprising means ~~(104, 105)~~ for forming an imaged data page from said data page, said imaged data page comprising imaged data bits ~~(a, b, c, d)~~ having a first size ~~(s1)~~ in a direction-(D), means for detecting ~~(114)~~ said imaged data page, said detecting means comprising detector elements having a second size ~~(s2)~~ in said direction, said second size being larger than said first size, and displacement means ~~(200)~~ for displacing the imaged data page in said direction with respect to the detecting means so as to scan said imaged data page.

2. (Currently Amended) An The optical holographic device as claimed in claim 1, wherein the second size is at least two times larger than the first size.

3. (Currently Amended) An The optical holographic device as claimed in claim 1, wherein said displacement means comprise an electrowetting based deflection device (200) or a liquid crystal based deflection device.

4. (Currently Amended) An The optical holographic device as claimed in claim 1, wherein the detector elements (414a, 414b) are disposed in staggered rows, the means for forming an imaged data page being arranged in such a way that an imaged data bit impinges on at least two detector elements.

5. (Currently Amended) A method for reading out a data page recorded in a holographic medium, said method comprising a step of the acts of:

forming an imaged data page from said data page on detecting means, said imaged data page comprising imaged data bits having a first size in a direction, at least one step of direction;
displacing the imaged data page with respect to the detecting means, and, means;
after each displacing step act, a step of measuring the output of at least one detector element having a second size in said direction, said second size being larger than said first size, the method further comprising a step of size; and retrieving the data page from said measurements.

6. (Currently Amended) A-The method for reading out a data page as claimed in claim 5, said method further comprising the act of, after each step act of measuring, a step of subtracting the outputs of two detector elements.

7. (Currently Amended) A-The method for reading out a data page as claimed in claim 5, wherein said second size is X times larger than said first size, the method comprising (X-1) displacing steps acts.

8. (Currently Amended) A computer program stored on a computer readable memory medium comprising a set of instructions which, when loaded into a processor ~~or a computer~~, causes the processor ~~or the computer~~ to carry out the method as claimed in Claim 5.

9. (New) The optical holographic device of claim 1, wherein the imaged data page is displaced by rotation of a reference beam from a radiation source and rotation of the holographic medium in such a way that an angle of the reference beam with respect to the holographic medium does not vary.

10. (New) The optical holographic device of claim 1, wherein the means for forming the imaged data page is arranged in such a way that an imaged data bit impinges on at least two detector elements of said detecting means, and wherein outputs of the at least two detector elements are subtracted.

11. (New) The optical holographic device of claim 1, wherein a value of an imaged data bit is deduced by comparing two consecutive

outputs of a same detector element of said detecting means, the imaged data bit being a bit that no longer impinges on said same detector element after being displaced in said direction.

12. (New) The optical holographic device of claim 1, wherein a value of an imaged data bit is deduced by comparing differences between two consecutive outputs of a same detector element of said detecting means, the imaged data bit being a bit that no longer impinges on said same detector element after being displaced in said direction.

13. (New) The optical holographic device of claim 1, wherein a value of an imaged data bit is deduced from subtracting outputs of two detector elements of said detecting means having common imaged data bits common to the two detector elements; the imaged data bit being a bit that is not common to the two detector elements.

14. (New) The optical holographic device of claim 1, wherein the second size is X times larger than the first size, where X is not an integer.

15. (New) The optical holographic device of claim 1, wherein the second size is X times larger than the first size, and wherein the imaged data page is displaced (X-1) times with respect to said detecting means to retrieve the data page.

16. (New) The method of claim 5, wherein displacing act displaces the imaged data page by rotation of a reference beam from a radiation source and rotation of the holographic medium in such a way that an angle of the reference beam with respect to the holographic medium does not vary.

17. (New) The method of claim 5, wherein the imaged data page is arranged in such a way that an imaged data bit impinges on at least two detector elements of the detecting means, and wherein the retrieving act includes subtracting outputs of the at least two detector elements.

18. (New) The method of claim 5, further comprising the act of deducing a value of an imaged data bit by comparing two consecutive

outputs of a same detector element of the detecting means, the imaged data bit being a bit that no longer impinges on said same detector element after being displaced in said direction.

19. (New) The method of claim 5, further comprising the act of deducing a value of an imaged data bit by comparing differences between two consecutive outputs of a same detector element of the detecting means, the imaged data bit being a bit that no longer impinges on said same detector element after being displaced in said direction.

20. (New) The method of claim 5, further comprising the act of deducing a value of an imaged data bit from subtracting outputs of two detector elements of the detecting means having common imaged data bits common to the two detector elements; the imaged data bit being a bit that is not common to the two detector elements.